Swift Fox News

The Swift Fox Conservation Team Vol. 1 • No. 2 • September 2000

This is the second newsletter of the Swift Fox Conservation Team, a multi-agency group formed in 1994 to work cooperatively on swift fox management and conservation. The Team was assembled by state wildlife agency directors within the U.S. swift fox range in response to a U.S. Fish and Wildlife Service finding that the species was warranted for federal listing under the Endangered Species Act. The primary purpose of this effort was to assemble existing information, collect new biological data, and implement needed swift fox monitoring and management programs so the future of the species is assured and federal listing is unneeded.

The Team also includes representatives from Canada and federal wildlife and land management agencies in the U.S. The Team has open annual meetings at rotating sites within the range of the swift fox and produces an annual report that includes updates on monitoring efforts and research projects. If you are interested in receiving copies of Team reports or results from swift fox activities in your state, contact your state wildlife agency's Team representative.

WILL THE SWIFT FOX BE LISTED?

Many entities, representing state, federal, private, and tribal interests, have long been interested in swift fox conservation and active in furbearer management. However, it was the threat of federal listing under the Endangered Species Act that served as a catalyst for state wildlife agency directors to formally commit themselves to more active roles in swift fox monitoring and research activities. The Swift Fox Conservation Team has served as a conduit for sharing swift fox information with the U.S. Fish and Wildlife Service, which is responsible for endangered species listing decisions. This interaction is important, since the Service is being asked to trust that state agency commitments to swift fox will continue when the species is no longer a federal candidate**.**

Team participants representing state wildlife agencies are hopeful that the swift fox will be removed from the candidate species list. This removal would formally recognize that biological information does not justify federal listing, and in the process remove the fear of future restrictions associated with endangered species listing. Unfortunately, the Service has higher priorities that demand attention, meaning that the swift fox will remain as a federal candidate species for now.

1999 SWIFT FOX CONSERVATION TEAM UPDATE

The Swift Fox Conservation Team (Team) recently met for its 5th annual meeting since the U.S. Fish and Wildlife Service (USFWS) began evaluating the need to list the swift fox as an endangered or threatened species under the Endangered Species Act. The Team is composed of representatives from state and federal agencies within the range of the swift fox.

The primary focus of the Team has been to document swift fox distribution in each state where historical records existed. To date, biologists in the states of Colorado, Kansas, North Dakota, New Mexico, Oklahoma, and Wyoming have completed preliminary swift fox distribution surveys in their respective states. The states of Nebraska, South Dakota, and Montana have completed a portion of this task. Although current swift fox distribution is reduced from historical times, swift fox occur throughout much of the historical range within the shortgrass or mixed-grass prairie ecosystem.

Based on information gathered from research and monitoring projects, the Team supports removal of the swift fox as a candidate for federal listing. The USFWS is currently considering whether the swift fox should be removed from the federal candidate species list. The Team is awaiting review of this proposal by USFWS authorities in Denver, Colorado and Washington, DC.

A recent, high-profile project is an effort to reintroduce swift fox on the Blackfeet Indian Reservation in Montana. Officials from the Blackfeet Tribe and Defenders of Wildlife released a total of 45 swift fox on tribal lands in 1998 and 1999. Another private organization, The Turner Endangered Species Fund, has expressed an interest in reintroducing swift fox on their Bad River Ranch in South Dakota. In response to this interest in reintroduction projects, the Team has produced guidelines to promote scientifically sound and well-planned reintroduction projects. The Team believes, however, that swift fox reintroduction is unnecessary throughout the majority of swift fox range. Therefore, reintroduction is not a high priority activity for the Team.

The efforts of the Team continue to be focused on existing populations and on determining barriers that may prevent natural dispersal of swift fox to uncolonized habitat that appears suitable. Among the factors potentially preventing swift fox dispersal are predation by coyotes, competition with resident red fox, manmade barriers (especially roads), limited winter food in northern climates, and lack of suitable habitat. Results from various research projects and field observations have also demonstrated the ability of these small fox to adapt to a wide range of habitat types, such as shortgrass and mixed-grass prairie, rangeland, cropfields, mesquite, and sand sage habitats.

Each spring, the Team produces an annual report that includes results of field activities of the previous year and minutes of the annual meeting. Copies can be obtained by contacting the state wildlife (or fish and game) agency in your state.

SWIFT FOX BASICS

- Currently ranges from Canada, where reintroduced, south through parts of Montana, Wyoming, South Dakota, Colorado, Nebraska, Kansas, Oklahoma, Texas, and New Mexico.
- 12 inches tall at shoulder; 2-3 feet long from nose to end of tail; weight 4-6 pounds.
- Distinguishing features are small size; dark markings on either side of muzzle; and long, bushy, black-tipped tail.
- Uses dens year-round for shelter, protection from predators, and places to rear young, making the swift fox the most den-dependent and subterranean North American fox.
- Habitats vary across the broad range of the swift fox and include shortgrass and mid-grass prairies, cultivated fields, and habitats dominated by pinyon-juniper, sand sage, or mesquite.
- Habitat features often include gently rolling topography, loose soils for easy burrowing, and low grass or shrub ground cover to allow distant viewing.
- Female bears one annual litter (average 4-5/litter) in April or May. Young remain in den until about one month old.
- Foods include jackrabbits, cottontails, prairie dogs, ground squirrels, mice, insects, birds, and carrion.
- Mortality due in part to predation (badgers, bobcats, coyotes, golden eagles), poisoning, accidental death from trapping, or collisions with vehicles.

HOW ZOOS ARE HELPING SWIFT FOX

The Swift Fox Conservation Team and AZA Canid TAG have endorsed the Fort Worth Zoo's interest in spearheading the development of a cooperative captive conservation program for swift fox. Program objectives are to assist in the development of a nationwide conservation awareness and education program; support Swift Fox Conservation Team field efforts; and maintain a healthy, genetically-viable captive population.

Conservation education plans include the development of a color brochure and poster, integration of swift fox information into pertinent web-sites, and development of swift fox art and T-shirt for education and fundraising efforts.

Field conservation assistance has included purchase and loan of field equipment and development of restricted list serve for Team.

Research interests include multi-institutional reproductive biology study with St. Louis Zoo and investigation of effective contraceptive implants.

The swift fox was named as a priority small-canid species for purposes of captive programs and exhibition. A number of zoos have swift fox in captivity or are interested in exhibiting swift fox in the future.

Information provided by Tarren Wagener, Fort Worth Zoo

IS REINTRODUCTION THE ANSWER?

Endangered species reintroductions can be dramatic and popular recovery stories, but they are costly in terms of time, personnel, and dollars. Reintroduction may enhance swift fox recovery in portions of the species' historical range. However, the Team has classified reintroduction as a low national priority because of the cost and uncertainty of reintroduction projects; because reasons for swift fox absence may be unknown; and because maintaining swift fox where they presently occur is considered a better investment of limited wildlife conservation resources.

The Team recognizes that landowners or managers may be interested in swift fox reintroduction. For instance, swift fox were extirpated from Canada and reintroduced over a 15-year period. The Blackfeet Tribe is currently releasing swift fox onto their lands in northwestern Montana. Ted Turner's Bad River Ranch in South Dakota is preparing to begin a reintroduction program with a possible release during the fall of 2001. Because of an interest in promoting well-conceived and properly planned reintroduction projects, the Team has prepared a document entitled *Swift Fox Reintroduction Guidelines*. This document guides reintroduction proponents through the steps of preliminary planning, objective-setting, evaluation components, release procedure considerations, and project assessment and evaluation. These guidelines will be included in the 1999 Annual Report of the Swift Fox Conservation Team, which will be released during late-summer, 2000.

SELECTED UPDATES FROM SWIFT FOX RANGE

Canada

The swift fox in Canada has been officially "upgraded" in its status from extirpated (once present but no longer existing in the country) to endangered (a species present but whose status is in a very precarious state). The current population level is at about 300 foxes, and this population does not include the adjacent U.S. population in Montana, which has resulted from the Canadian reintroduction program. Swift foxes had been released in Canada over a 15-year period. Currently the releases have been discontinued. The important outcome of this study has been the finding that swift foxes can survive in areas from which it had disappeared. In ecological terms we speak of the ecological niche. This area is still available for swift foxes, and whatever caused their losses in the past no longer appears to be a problem for swift fox survival. No new releases are planned for the near future.

Submitted by Lu Carbyn, Canadian Wildlife Service

Oklahoma

The Oklahoma Department of Wildlife Conservation began a project in 1998 to determine swift fox distribution and abundance throughout the short-grass prairie High Plains ecoregion in Oklahoma. Alternating townships within this region were surveyed for furbearer tracks. Survey locations were concentrated in areas that had herbaceous range habitat, the best available substrate for tracks, little vehicle traffic, and a lack of human disturbance. Track surveys were conducted throughout the month of August during both 1998 and 1999. Track searches were conducted by ODWC biologists and game wardens, and zookeepers from the Oklahoma City Zoo.

Because of funding limitations in 1998, only 57 townships were surveyed. In 1999, all 114 townships were successfully searched for tracks. In 1998, swift fox tracks were detected in 35 of the 57 townships surveyed. Swift fox tracks were found most often on two-track and dirt roads in rangeland habitats, which comprised 46% of the area surveyed. The rangeland plant community consists primarily of blue grama, hairy grama and buffalograss, interspersed with sandsage, yucca and cholla cactus. Data analysis for 1999 has not been completed.

Submitted by Julianne Whitaker Hoagland, Oklahoma Department of Wildlife Conservation

Wyoming

Swift fox surveys were begun in Wyoming in 1995 to gather current distribution data in response to the 1992 petition for threatened listing. Spotlight and track plate surveys were performed over the entire historic range, which included 17 counties in the eastern two-thirds of the state. Trapper surveys have indicated possible occurrence in at least two additional counties but reports have not been verified by survey results. The 1997 Conservation Assessment and Conservation Strategy for Swift Fox in the United State shows the current range of the species in Wyoming to be synonymous with the historic range except for the three western counties where current occurrence has not been verified.

In 1996 the University of Wyoming Cooperative Fish and Wildlife Research

Unit began research to refine survey techniques, specifically for the purpose of establishing a baseline population and monitoring population over the long-term. This research was carried out in high desert sagebrush grasslands near Medicine Bow, Wyoming between 1996 and 1998. Metal track plates (2 ft x 2 ft) were determined to be the most effective, reliable survey technique. Forty-one individual swift fox were captured from 1996-98 and up to 9 pairs were radio collared and followed year-round during detection probability research using track plates. The data indicated that using baited track plates spaced at ½ mile intervals there is an 88% probability of detecting at least one fox of a pair occupying a home range in the survey area. The highest rate of detection was late June to late August.

The Wyoming Game and Fish Department adopted the track plate survey technique and began occurrence surveys in one of the three swift fox concentration areas in the state in August 1999. Twenty-four transects were run in south-central Wyoming, ranging from 3 to 20 miles in length, with track plates placed at one mile intervals to establish swift fox presence/absence and delineate the extent of the distribution in that part of the state. Seventy swift fox locations were recorded, 24 of which were discrete observations. These 24 locations will serve as baseline transects for the trend survey that will begin in 2001 and be repeated in 2006 using track plates spaced at ½ mile intervals. Swift fox concentration areas in southeastern and northeastern Wyoming will be surveyed for presence/absence and extent of distribution in 2000.

Submitted by Bob Luce, Wyoming Game and Fish Department

SWIFT FOX CONSERVATION TEAM MEMBERS

State	Federal
Oklahoma: Julianne Whitaker Hoagland – Chair Oklahoma Dept. of Wildlife Conservation 1801 N. Lincoln Blvd. Oklahoma City, OK 73105	**U.S. Fish and Wildlife Service: Pete Gober** South Dakota Ecological Services Office 420 S. Garfield, Suite 400 Pierre, SD 57501
Colorado: Jennie Slater Colorado Division of Wildlife 317 W. Prospect Road Fort Collins, CO 80526	**U.S.G.S./Biological Resources Div.: Marsha Sovada** Northern Prairie Wildlife Research Center 8711 37th Street SD Jamestown, ND 58401
Kansas: Christiane Roy Kansas Dept. of Wildlife and Parks 1830 Merchant, Box 1525 Emporia, KS 66801-1525	**U.S. Forest Service: Bob Hodorff** Nebraska National Forest, Fall River Ranger District 209 North River Street Hot Spring, SD 57747
Montana: Brian Giddings Montana Fish, Wildlife and Parks PO Box 200701 Helena, MT 59620-0701	**U.S.D.A.: Rick Wadleigh** APHIS, Wildlife Services 12345 W. Alameda Parkway #204 Lakewood, CO 80228
Nebraska: Richard Bischof Nebraska Game and Parks Commission 2200 N. 33rd Lincoln, NE 68503	**Bureau of Land Management: Mark Hilliard** 1387 S. Vinnell Way Boise, ID 83709
New Mexico: Greg Schmitt New Mexico Dept. of Game and Fish PO Box 25112 Santa Fe, NM 87504	
North Dakota: Jeb Williams North Dakota Game and Fish Department 100 N. Bismarck Expressway Bismarck, ND 58501	**Canada: Steve Brechtel** Alberta Fish and Wildlife Division 9945 108th Street Edmonton, AB T5K 2G9
South Dakota: Eileen Dowd Stukel South Dakota Department of Game, Fish and Parks 523 E. Capitol Pierre, SD 57501	
Texas: Robert Sullivan Texas Parks and Wildlife Department PO Box 659 Canyon, TX 79015	
Wyoming: Bob Luce Wyoming Game and Fish Department 260 Buena Vista Lander, WY 82520	

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